

Notice of Allowability

Application No.

09/934,643

Examiner

Hsien-Ming Lee

Applicant(s)

ARAKAWA, HIDEYUKI

Art Unit

2823

H

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/17/04.
2. ☒ The allowed claim(s) is/are 1, 4-7 and 10.
3. ☒ The drawings filed on 23 August 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Hsien Ming Lee 4/23/04

DETAILED ACTION

Remarks

1. The rejection as set forth in the previous Office Action is withdrawn.
2. Claims 1, 4-7 and 10 are pending in the application.

Allowable Subject Matter

3. Claims 1,4-7 and 10 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record, applicant's admitted prior art (hereinafter referred as "AAPA"), teaches a method and a semiconductor device, comprising:

- a conductive layer 10 (Fig.8);
- a first contact 2 comprising a ball 2 on said conductive layer 10 (Fig.8);
- a first bonding pad 6 spaced apart from said conductive layer 10 (Fig.8); and
- a bonding wire 1 electrically connecting said first contact 2 to said first bonding pad 6 and forming a second contact 9. (Fig.9).

In re claim 1, AAPA at least neither teaches nor suggests that a second contact includes at least first and second layers of a bonding wire, and the first layer *is joined to both of the first bonding pad and the second layer and is between the second layer and the first bonding pad, directly opposite the first bonding pad.*

In re claim 7, AAPA at least neither teaches nor suggests mechanically *deforming a second part* of said bonding wire, while said first part of said bonding wire is joined to the bonding pad, so that said *second part* of said bonding wire is *folded onto said first part* of said bonding wire directly opposite said bonding pad *with said first part of said bonding wire*

between said bonding pad and said second part of said bonding wire ; and joining said second part of said bonding wire to said first part of said bonding wire while said first part of said bonding wire is on said bonding pad.

In the examiner's opinion, it would not have been obvious to one of the ordinary skill in the art, at the time of the invention was made, to modify AAPA's device to arrive the instant invention, especially the aforementioned patentably distinct limitations.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-Ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on M-F (9:00 ~ 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/934,643
Art Unit: 2823

Page 4

Hsien-Ming Lee
Examiner
Art Unit 2823

April 23, 2004

Hsien-Ming Lee 4/23/2004